

Senior Software Architect

Over 15 years of experience developing customer-facing software products while leading high-performing teams. Certifications in AI and Machine Learning and the Snowflake data platform.

Skilled in designing and implementing innovative client-side media technologies, including video streaming and remote camera control, complemented by a robust background in Internet of Things (IoT) integrations. Highly adept at developing scalable, multi-tenant architectures with full internationalization capabilities, achieving significant code reusability and maintainability. Proficient in employing advanced analytics to finely tune performance, feature integration, and cost efficiencies. Committed to adopting modern reactive-style architectures and enhancing system reliability and capability through strategic use of software design patterns. Passionate about translating complex technical requirements into tangible user benefits, consistently delivering products that exceed operational goals and enhance user engagement.

Areas of Expertise

- Software Architecture
- Project Management
- API & SDK Design
- Snowflake
- Team leadership & agile scrum
- Client & server web development
- Machine Learning & Artificial Intelligence
- Video streaming technologies
- Performance optimization & data analysis
- User experience design (UX)
- Reactive programming style
- Full lifecycle product development

Technical Skills

Languages: JavaScript (Expert), SQL, Java, Python, C#, C++, Zig, Visual Basic

Frameworks/Technologies: Vue, Angular, HTML, HTTP, SQL, No-SQL, TensorFlow/Keras, Web Assembly, Machine Learning, Artificial Intelligence, RxJS, .NET Framework (since v1.1)

Career Experience

Chamberlain Group, Sacramento
Senior Software Architect

2018 – 2024

Directed a high-performing team of iOS, Android, and web developers, enhancing productivity and performance through data-driven development strategies. Leveraged expertise in client-side media technologies, such as recorded video playback, video live streaming, and remote camera control, to expand product and service offerings. Spearheaded Internet of Things (IoT) projects and facilitated new product development, utilizing video capabilities in collaboration with cross-functional teams and external partners.

- Developed a Video SDK that enabled native video technologies across web and mobile applications, significantly enhancing the streaming and playback capabilities of the Chamberlain/LiftMaster myQ app and similar products from various partners.
- Produced major web features for myQ, Chamberlain's premier app with over 10M users.
- Created custom JavaScript-based animations using game theory principles, significantly increasing user feedback, which was instrumental in training AI systems for face recognition and object detection.
- Engineered multi-tenant web applications using Angular and Vue alongside Java servlets, achieving full internationalization and localization while enabling over 90% code reusability across six applications, improving maintainability.
- Employed analytics to optimize performance, feature sets, and costs, aligning development outcomes with organizational objectives, bringing the streaming success rate from 85% to 97%.
- Championed modern reactive-style architectures, incorporating Coroutines on Android, Combine Framework on iOS, and RxJS on web platforms, enhancing reliability and expanding capabilities through the Observer design pattern to better support internal and partner applications.

Tend Insights, Sacramento**2013 – 2018**

Director of Application Development & User Experience

Served as the subject matter expert for web experiences integrated into native iOS and Android mobile apps, overseeing both client-side software and customer service teams to ensure seamless operational flow. Directed pioneering development in client-side technology for the Wi-Fi security camera sector, establishing early market leadership before competitors such as Ring, Nest, Arlo, and Wyze.

- Built out the client-side components of a video streaming platform worth over \$40M which was sold to Chamberlain.
- Engineered an infinitely scrolling event list control designed to manage up to 10,000 items, optimizing performance on mobile platforms.
- Implemented groundbreaking HTML5 Canvas-based controls to deliver a video game-like user experience, surpassing customer expectations.
- Optimized workflows for capturing and consolidating bug reports, transforming them into actionable tickets for developers and reducing response times from weeks to 48 hours.

Sigma Web Consulting, Sacramento**2010 – 2013**

Principal Consultant

Developed and delivered a three-day seminar on web development for Windows desktop application developers, enhancing their transition to web-based platforms. Collaborated with Deloitte Consulting to overhaul the State of California's unemployment insurance system, including enhancements to the interactive voice response (IVR) system. Executed full-stack development projects encompassing databases, web services, and client applications, ensuring comprehensive technology solutions.

- Engineered an Enterprise Resource Planning (ERP) application for Cru to manage scripts and media projects across over 1,000 languages, streamlining organizational workflows.
- Created a high-performance reporting engine that delivered Microsoft Excel outputs, surpassing the capabilities of the Open XML SDK and enabling real-time data reporting for web applications.
- Developed an animated passport book component for an immigration law firm's website to showcase positive client feedback, which, combined with optimized SEO, significantly increased client acquisition.

Education**Master of Business Administration**

California State University, Sacramento

Bachelor of Science in Mechanical Engineering, Minor in Music

California State University, Sacramento

Certifications**SnowPro Core Certification**, Snowflake**Machine Learning and Artificial Intelligence Certificate**, Caltech